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ABSTRACT

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(R&D Rep. No. 6178)

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Abstract

Classroom management is conceptualized as a set of teacher behaviors and activities that are directed at eliciting student involvement or engagement in classroom activities and preventing disruption. Research on classroom management and discipline is reviewed and integrated into a three phase model. The first phase occurs prior to the beginning of school and includes the formation of expectations about behavior and work requirements along with room and materials preparation. A second phase occurs at the beginning of the school year; in this phase the teacher needs to be concerned with socializing students into the classroom setting and establishing appropriate behavior. The third phase occurs throughout the year and is focused on maintaining appropriate behavior. Research related to each phase in the management process is summarized and discussed, with an emphasis on describing the teaching skills and principles associated with effective management.

Classroom Management: Research and Implications

Classroom management is the set of activities and behaviors directed at establishing a setting in which students engage in learning activities and in which disruptive behavior is kept at a minimum. Classroom management skills are usually regarded as an important basis for effective teaching and as central to the teacher's role. Their importance has frequently been noted in reviews of teacher effectiveness research (e.g., Brophy, 1983; Good, 1982; Medley, 1977), and it would be surprising to find a teacher or student teacher evaluation instrument that did not contain a section on classroom management or at least a global rating of the characteristic. In spite of consensus on the importance of the topic, its major dimensions are not well defined in the teacher education curriculum, and preservice teachers are likely to encounter management concepts as disconnected components rather than as a comprehensive, integrated set.

In order to provide a comprehensive perspective on classroom management, the present report will review and integrate findings from a series of studies conducted at the Research and Development Center for Teacher Education (R&DCTE) along with other research on classroom management. This integration of research will identify major dimensions of effective managment and organize them according to a three phase model of the management process.

Preliminary Considerations

Importance of Classroom Management

One reason that researchers at R&DCTE began studying classroom management was that earlier process/product research conducted at this

Center (e.g., Brophy & Evertson, 1976) and elsewhere had identified effective classroom management as a consistent predictor of student achievement. The nature of the earlier data and the clarity with which the management dimension stood out are shown in the results of an analysis of data obtained from the classes of 29 seventh- and eighth-grade math teachers (Evertson, Emmer, & Brophy, 1980). For this analysis, a group of three highly effective teachers and another group of six relatively ineffective teachers were identified based on student achievement gains and on the basis of student attitudes as measured by a questionnaire given at the end of the school year. Initial ability levels of the classes were comparable, but final student achievement and attitude levels markedly favored the three more effective teachers. For each teacher, extensive observation data had been obtained by observers who had no knowledge of any results regarding student achievement or attitudes. A comparison of the two sets of teachers on classroom behavior measures indicated numerous significant mean differences ($p < .05$). Examples of such variables are listed below (only a few variables are given--readers interested in the full set should consult the original article):

Teacher consistently enforces rules

Amount of disturbance teacher accepts

Monitoring of class

Efficiency of transitions

Amount of productive time

Students obey teacher.

Except for the second listed variable, more effective teachers had higher means on each variable. This sample of variables clearly

suggests a management dimension. It is worth noting that not all variables that were examined showed differences between the two groups. Assessments on variables listed below showed no differences:

Attractiveness of room

Democratic leadership

Teacher socializes with students

Teacher showmanship

Emphasis on grades

Teacher's command of subject.

Of course, finding no differences on these variables does not necessarily mean that they are unimportant. For example, none of the teachers was judged to have poor command of the subject, so a restricted range may have prevented some variables from showing a difference. The point is that the teachers were not different on all variables, but there were reliable differences on variables related to a dimension that is best characterized as classroom management effectiveness.

This result was not an isolated finding. Other research conducted at R&DCTE (e.g., Brophy & Evertson, 1976), as well as reviews of the teacher effectiveness literature noted earlier, had also found variables in the domain of classroom management to be related to effective teaching. Thus, classroom management research was seen as an important extension of an already established line of inquiry.

Another reason for studying classroom management has to do with its centrality to the role of a teacher (Doyle, 1979; Dreeben, 1973). A major part of the task of teaching is to manage a classroom; that is, to prepare the setting, to organize groups, and to engage children in activities appropriate for mastery of the curriculum objectives.

A third reason for studying classroom management is the absence of a unified conception of it in the teacher-preparation curriculum. Courses devoted primarily to classroom management are generally not required, and management tends to be considered diffusely throughout the program. Also, although good classroom management is a major criterion on most student teaching assessment instruments, little research-based information was available about how to create and maintain well managed settings. It was hoped that the research program would help build an empirical base for this important component of teacher preparation.

Methodological Considerations

Criteria for effective management. The R&DCTE research program and numerous studies of classroom management have used different but related criteria for judging that a classroom is effectively managed. Management is defined in terms of observable student behavior rather than an *a priori* conception of what an effective manager does. Two types of student behaviors are frequently used. One is the degree of disruptive behavior exhibited by one or more students. Disruptive behavior, by definition, interferes with the teacher or other students, and teachers take a very dim view of it. Related variables include: deviant, off-task, inappropriate, or aggressive behavior. A second type of student behavior frequently used as a criterion in management research is the degree to which students are appropriately engaged in classroom activities. Engagement rate reflects the degree to which students are involved in whatever activities the teacher identifies as appropriate. Related terms include: student attention, student involvement, and on-task behavior. Studies that have used both criteria

simultaneously have reported moderate correlations between the two types of variables, indicating that they are related but that each variable contributes some unique information. The use of these criteria for management thus implies that an effectively managed classroom has high rates of student engagement in academic tasks and procedures, and low levels of disruption and other inappropriate behavior. While this conception is logically defensible by virtue of the teacher's role in maintaining an orderly and appropriate environment for learning, it also has empirical support. Research has identified student task orientation as a major basis for teacher decision making (Pullis & Caldwell, 1982) and the student behavior criteria have been found to predict student achievement gains. For example, see reviews in Bloom (1976), Jackson (1968), and by Hoge and Luce (1979).

Sources of evidence. An examination of research related to classroom management reveals diverse methodologies. A number of small-scale investigations have been made of applications of behavior modification variables (e.g., the effects of time out on disruption or of differential reinforcement on on-task behavior rates). Numerous studies have been conducted in the areas of human development and social psychology using dependent variables related to the student behavior variables used as criteria for effective management. Often such studies are laboratory experiments conducted in settings that differ from typical classroom environments, but which use independent variables that commonly occur in classrooms (e.g., punishment, rules, modeling, reward). At its best, such research has good internal validity, clear definitions of both independent and dependent variables, and allows causal inferences to be made. A major drawback to such research,

however, is the difficulty in generalizing results to classroom settings. Kounin (1970) provides a clear example of this drawback when he cites his own research on the effects of different qualities of teacher "desist" strategies. Qualities that made desists effective in camp or family settings did not have an effect in classroom settings. Furthermore, student attributions for what made desists effective in classroom settings were not borne out by observational data. Such results make us very cautious about attempting to translate findings from nonclassroom-based research, or classroom research which greatly alters the environment. Nevertheless, such research should not be rejected simply because it is not classroom based. Numerous studies could be identified showing effects for certain variables (e.g., reinforcement strategies, punishment, clear expectations) that have been shown to have similar effects in both laboratory and classroom-based research. A reasonable stand is that nonclassroom-based research can be a useful source of information about particular variables' effects when used as a complement to (but not as a substitute for) classroom research.

Another major source of classroom management results is studies conducted in classroom settings. Such research is usually "naturalistic," that is, observations are made with minimal disruption to the environment. Such research may be conducted in a large number of classrooms or limited to one or a few settings. Usually such research is correlational, but some field experiments have also been conducted. Naturalistic studies of classrooms provide a surer basis for generalization to other classroom settings, but yield far less certainty as to the nature of causality than do controlled laboratory studies.

Even though field experiments allow surer inferences about cause and effect relationships, they frequently use complex treatments that may be only partially implemented, thus rendering the interpretation of results ambiguous or limited in scope.

The limitations of various methodologies should not cause the abandonment of a search for research-based answers to questions about management. Rather answers should be sought from multiple sources. Through an accumulation of findings derived from different methodologies, important dimensions of classroom management may be inferred. A conception of management and of "best practice" can then be informed by ongoing inquiry from a variety of perspectives.

How much difference do teachers make? It might be argued that the individual teacher is only a small part of classroom management and that students or class characteristics are even more influential in mediating classroom management outcomes. Viewed from this perspective, the results of naturalistic studies that show correlations between teacher behavior and student engagement or level of disruption actually reflect not teacher effects, but student effects. For example, Kounin's (1970) finding of a correlation of .615 between teacher "withitness" and student work involvement in recitations can be interpreted to mean that when students are initially cooperative or motivated to work, teachers are more likely (or able) to respond in a timely and accurate way to off-task pupil behavior, while teachers with initially uncooperative students or a "difficult" class may be confronted by so much misbehavior that they cannot be very "withit." However, there are a number of reasons to believe that teachers have a major impact on classroom management outcomes.

1. In several studies, correlations between class composition or student characteristics and student behavior have been low or nonsignificant. For example, when Kounin (1970) correlated class size and boy/girl ratios with work involvement and deviancy rates, he obtained only very low correlations. A study of junior high classrooms (Emmer, Sanford, Clements, & Martin, 1982) found either no correlation or ver low correlations between class composition characteristics (size of class, average entering achievement level, variance in student entering achievement, boy/girl ratio, proportion of Black, proportion of Mexican-American, and proportion of Anglo students in the class), and student on-task or disruptive behavior rates. At the same time, teacher management variables in these studies correlated at considerably higher levels with the student behaviors.

2. Teacher behaviors that predict student work involvement and deviancy rates of elementary grade children who are not emotionally disturbed (ED) are the same as for children identified as ED (Kounin & Obradovic, 1968). Also, correlations of the work involvement rates of ED and non-ED students in the same classes ranged from .57 to .82 (Kounin, 1970). Although ED students exhibited somewhat less appropriate classroom behavior than nonED students, both types of children seemed to react similarly to various classroom settings. Furthermore, when the extent of "contagion" to nearby students from ED students exhibiting disruptive behavior was correlated with the degree of off-task behavior exhibited by students not in the vicinity (and thus unlikely to be directly affected by the ED students), the relationships were very high. Thus, high correlations between the behaviors of ED and nonED students cannot be attributed to the degree of disturbance caused

by ED students, but rather to whatever variables produced the overall level of appropiate or inappropriate behaviors in the classes. Because teacher variables identified by Kounin (e.g., withitness, smoothness) were at least moderately correlated with the behavior criteria, it seems most plausible to conclude that the environment created by the teachers accounted for most of the differences in observed student behavior.

3. In a study of junior high teachers (Evertson & Emmer, 1982), a group of effective managers and a group of less effective managers were identified, based on measures obtained after the first month of the year. The entering achievement levels of these teachers' classes and the subjects they taught were comparable. Retrospectively, the behavior of the two groups of classes was compared during the first week of school and during the second and third weeks. The results for off-task, unsanctioned behavior are shown in Figure 1. Although a significant ($p < .05$) difference occurred during the second and third weeks (and the difference increased during the rest of the year), only a slight and nonsignificant difference was evident during the first week of classes. Thus, both sets of teachers began the year with classes that exhibited the same (low) levels of inappropriate behavior; however, only the more effective managers were able to maintain their settings. It is reasonable to conclude that these teachers did something to maintain student behavior that the less effective teachers failed to do, and/or that the less effective teachers did other things that produced the poor management results throughout the year.

4. Finally, numerous laboratory experiments and some field studies have shown that on-task rates and level of disruption are capable of direct influence by teacher-controlled variables. These studies, some

of which are cited later in this paper, have produced results in both field and laboratory settings.

A reasonable conclusion is that classroom management variables can have important effects on student behavior. This dimension of the teacher's role deserves continuing study by researchers because of its applications in teacher education as well as its potential for revealing important classroom processes.

Having made a case for important teacher effects, however, does not mean that students do not have effects or that student perceptions or attributions do not mediate teacher effects. Discussions of differences in student behaviors as a function of class and student characteristics and related teaching practices are provided for emotionally disturbed children in Kounin, Friesen, and Norton (1966); for highly heterogeneous classes in Evertson, Sanford, and Emmer (1981), and for low-ability level classes in Metz (1978) and in Evertson (1982).

Such research indicates that teachers do not greatly alter their managerial behaviors to deal with variations in student characteristics or behavior. Some groups of students are more difficult to manage, but better managers make adjustments to cope with them, while poorer managers are less adaptive and experience even more difficulty in managing such classes. Classroom research on student perceptions or attributions is relatively recent (for reviews see Brophy, 1983; Marx, 1983) although social psychological research in related areas has a longer history. Some implications from this area of research for classroom management are discussed later in this paper. However, the main focus of this review will be on teacher variables and their effects, rather than on student effects and mediating processes.

Phases in Classroom Management

The perspective on classroom management presented in this paper regards the management system as mainly directed at preventing problems by establishing norms for behavior and involving students in classroom activities, although provisions for reacting to inappropriate behavior are also included. Three major phases to the process of establishing and maintaining a well managed classroom will be described.

The first phase is a pre-active one, occurring prior to the arrival of students. It consists of preparing the physical setting, planning beginning-of-year activities, and identifying expectations for student behavior and for work requirements.

The second phase in classroom management occurs at the beginning of the school year. During this phase, the teacher communicates expectations to students, establishes norms for behavior and work, and initiates routines and procedures for conducting activities. Depending upon the age and grade level of the students, this phase may take anywhere from a few days to several weeks to complete.

In the third phase of classroom management, occurring throughout the remainder of the year, the emphasis is on maintaining norms for behavior and involving students in learning activities. During this stage the focus of management shifts from the socialization of students into the classroom setting to designing and conducting activities to keep students actively involved in them.

No implication is intended that the planning activities in phase one and the norm-setting activities in phase two do not occur at other times than the beginning of the year. New procedures can be introduced at other times, and changes in the physical setting or behavior norms

can and do occur although usually to a lesser degree than at the beginning of the year. Furthermore, students are socialized in the context of classroom activities, so their design at the beginning of the year is also important. Thus, the purpose of describing management phases is not to imply their complete independence but rather to emphasize their distinctive features.

Research that indicates major dimensions and variables that underly effective classroom management will now be considered, using as a guide the conception of management as a three-phase process of preparation, implementation, and maintenance.

The Pre-active Phase: Preparing for the Beginning of the Year

Studies of teacher thinking indicate that the primary factors that influence teacher planning for instruction are the content, materials, and activities available to the teacher, and student interest or involvement. Learning outcomes or objectives are given a less central role in planning (Clark & Yinger, 1979; Shavelson & Stern, 1981). Teacher planning of classroom activities is a complex phenomenon building on content from textbooks, prior experiences with activities, knowledge of students to be taught, and administrative practices in the school (McCutcheon, 1980). Thus, the concept of linear planning of instructional sequences to attain specific learning outcomes is not an accurate reflection of how teachers proceed. Of course, this does not mean that learning outcomes are irrelevant to teachers, because these goals are embedded in textbooks and other materials. Thus, activities utilizing them reflect curricular objectives; however, these objectives tend not to be an explicit basis for teacher planning.

Given these general findings about teacher planning, it is not surprising to find teacher preparation for the beginning of the year reflects more concern for managing the students and organizing activities than for achieving learning outcomes. Research on how teachers prepare for the beginning of the year is limited, but it does concur with the general picture obtained from the overall planning literature. Clark and Elmore (1979) interviewed elementary teachers to determine characteristics of their planning at the beginning of the year. Teachers concentrated most on physical arrangements in their classrooms and on reviewing and organizing their files and materials during the week before classes. Consistent with other research on teacher thinking, the teachers indicated that student motivation was a major factor in their choice of classroom activities for the beginning of the year. However, students were not consulted and provided no direct input for teachers' management plans. Major goals for the first 2 weeks of school were to make expectations explicit by establishing rules and procedures and by consistently enforcing them. The first 2 weeks of classes were used, in part, for diagnostic testing in reading or mathematics. After the first week, and continuing for several weeks, teacher concerns shifted to establishing a daily schedule and planning activities for all academic areas of the curriculum.

A study of teacher planning for the first day of school by 11 middle school teachers with 0 to 2 years of prior teaching experience was conducted using interviews with the teachers, examination of their written lesson plans, and classroom observations (Worsham & Emmer, 1983). Most teachers emphasized procedural and behavioral concerns, including classroom rules, procedures, and administrative tasks

(primarily required by principals). Although teachers' written plans were, for the most part, brief and stenographic, there was considerable correspondence between these notes and the major activities they followed on the first day of school. Classes with a first-day emphasis on principal-directed administrative matters (for example, filling out forms, information sheets) had fewer students on task and more inappropriate behavior on the first day and during the first 8 weeks of classes compared to classes in which administrative matters were not as heavily emphasized. In addition, teachers whose planning included affective concerns of students (for example, wanting to make students feel welcome to the school and to the class, and wanting students to become acquainted with the teacher and one another) had more students on task and less inappropriate behavior on the first day and during the first 8 weeks of the year. These findings must be treated cautiously because they are based on a very small sample, but they do suggest that initial planning that takes into account both norm setting (i.e., rules and procedures) and affective concerns is a better management strategy than totally focusing on the procedural/behavioral dimension and administrative matters.

Beginning-of-year preparation that takes into account the affective needs of students as well as their socialization into the classroom setting is also supported by research in elementary school classrooms. In a study examining the beginning-of-year behavior of seven very effective third-grade teachers selected from a group of 27 teachers, a major dimension characterizing the effective managers was the sensitivity to student concerns evident in their classroom activities (Anderson, Evertson, & Emmer, 1980). These teachers had prepared

beginning-of-year activities that included attention to students' personal needs, such as arranging and defining space for each child and his or her possessions, provision of routines for personal needs, such as bathroom and room use, and academic tasks which were well within reach of the children's capabilities.

The preceding study's result suggests that the sparse literature on teacher planning for the beginning of the year can be supplemented by observational studies of actual teacher and student behavior during this critical phase of the school year. Complex patterns of activities and behavior can be reliably observed and used as a basis for inferring prior teacher planning foci. Such inferences seem justified on the basis of the high correspondence found between written plans for the first day and actual behavior and activities on the first day (Worsham & Emmer, 1983), as well as on logical grounds. We know that teachers do plan for the beginning of the year, that their plans are related to their classroom activities; and, therefore, we should be able to infer at least the major categories for planning from their classroom behavior and from the activities they have chosen for their students.

An ethnographic study of an elementary teacher's beginning-of-year activities (Buckley & Cooper, 1978) indicated an emphasis on creating group norms, with 22 out of 32 rules or procedures established by the end of the sixth class day. Areas of concern included behavior outside of class, student talk, use and care of materials, group cohesiveness, and classroom work procedures. In another study, 14 elementary teachers and their classes were observed at the beginning of the year by Eisenhart (1977) who identified three major processes by which the teachers established and maintained control: arrangement of the

physical environment and students, establishing a schedule of activities, and the use of a system of rewards and recognition. While the Buckley and Cooper and the Eisenhart studies were not specifically addressed to planning activities, it is apparent that the systems used by the teachers were not spontaneously generated and they reveal at least some of the categories considered by the teachers in preparing for the beginning of the year.

Not all teachers plan for the beginning of the year in accordance with the above descriptions, however. Tikunoff, Ward, and Dasho (1978) report observing an elementary teacher who specifically chose not to plan a set of rules and procedures. Although this teacher regarded making expectations clear as an important goal, he "intended to initiate as few rules as necessary and only when the situation demanded them in order for the class to work productively and safely" (p. 99). The teacher eventually verbalized 52 rules or procedures, relying on sanctioning and interpersonal skills to maintain appropriate behavior. The authors state that the socialization process, except for two students, "proceeded exceptionally smoothly," so that a reactive style of norm creation appeared to have been viable, at least for this experienced teacher. However, in the limited literature available on beginning-of-year planning, this teacher appears to be an exception. Most teachers, and especially effective managers as discussed in studies reviewed below, appear to have a more proactive style.

A series of four studies conducted at the Research and Development Center for Teacher Education included extensive beginning-of-year observations as well as observations later in the year. The first two studies were conducted at the elementary and junior high school levels

with 27 and 51 teachers, respectively. These were naturalistic observation studies that attempted to describe the characteristic behavior and activities of effective classroom managers. Methods and results from the elementary study are reported in Emmer, Evertson, and Anderson (1980) and in Anderson, Evertson, and Emmer (1980). Results from the junior high study are reported in Evertson and Emmer (1982) and in Sanford and Evertson (1981). The third and fourth studies, also conducted in classrooms at the elementary and junior high/middle school grades, were field experiments examining the effects of interventions based on results from the first two studies. In the latter two studies, the interventions occurred at the beginning of the year and resulted in improved teacher behavior in many, but not all, management areas and also in more appropriate student behavior in experimental group classes compared to control group classes during the first 2 months of school. Results of these intervention studies are presented in Emmer, Sanford, Clements, and Martin (1982); Emmer, Sanford, Evertson, Clements, and Martin (1981); and Evertson, Emmer, Sanford, and Clements (1983).

In all four studies teachers were observed on the first day of classes as well as on six to eight other occasions during each of the first 4 to 8 weeks. Observations were also made on several occasions later in the year, although their frequency varied across studies. Observation data included typescripts of observer-dictated narrative records, frequency counts of behaviors, time-use records, ratings, and summary assessments based on observations and on the narrative records. More effective classroom managers demonstrated beginning-of-year activities that were significantly different from less effective managers in numerous areas, several of which strongly suggest that these

teachers engaged in more systematic preparation and planning or that they had better developed (more differentiated and complete) conceptions of desirable classroom settings. Important areas for beginning-of-year preparation indicated by these studies include organizing the physical setting, expectations for behavior, work requirements, and consequences. Components of these areas were identified by analyzing the descriptive data and by comparisons of more and less effective classroom managers.

Organizing the physical setting. This area includes arranging furniture and seating to facilitate the teacher's ability to monitor students; providing for clear lines of sight from student seating areas to instructional areas; providing ready access to frequently used teaching materials; and avoiding congestion in high traffic areas. Features related to the attractiveness of the room have not been found to be associated with management success in the R&DCTE studies. Strictly from a managerial standpoint, once the basic room arrangement has been planned and sufficient decoration has been done to make the setting attractive and welcoming, the teacher can and should turn his or her attention to other more pressing managerial concerns.

Identifying expectations for behavior. A major managerial task is to establish norms for behavior. Norms are made explicit in classrooms in a variety of ways, including teacher sanctioning behavior, formally presented rules, establishing procedures that regulate behavior during classroom activities, and through academic work requirements. The behavior of students and the tasks of accomplishing academic work in a crowded setting are complex, and careful planning is needed to keep activities running smoothly. Deciding upon and then implementing a system of rules, procedures, and work requirements is a major aspect of

creating a structure for student work and other behavior. It is not simply a matter of identifying a few classroom rules for behavior. While such rules can be helpful in guiding student behavior, they are not a substitute for carefully thought-out procedures and work requirements.

An illustration of the complexity of the task of identifying expected behaviors and the decisions that must be made can be seen by considering a specific area such as student talk during seatwork. If talk is permitted among students during seatwork, regulation of voice level may be required. For example, may students whisper, speak in normal voices, or in "classroom" voices? If small-group instruction is planned, then the teacher must decide whether talking will be permitted by students not in the groups. Another circumstance affecting student talk is whether students are expected to assist one another and under what conditions. A wide range of expectations governing student talk can be observed in different classrooms. Some teachers can tolerate more noise than other teachers, and different grade levels and activities may require different expectations. For example, the preceding considerations do not encompass expectations regarding student talk during other activities such as whole class instruction, discussions, or individual or group project work. The point is that different activities require different behaviors (Berliner, 1983). The successful manager can anticipate these requirements and communicate them to the students, thus increasing the predictability and functionality of the environment. The implication of having an explicit set of expectations is that it puts the teacher in a better position to translate the expectations into classroom procedures and to communicate

clearly with students. Ambiguity about what behaviors are appropriate for different activities is detrimental because it increases the likelihood of student testing of limits, promotes teacher inconsistency, and makes it more difficult for the teacher to monitor and give feedback to students about desired behavior.

Of course, a teacher may prefer not to formulate a general rule or an explicit procedure in a particular area, assuming that students will behave within acceptable, though unstated, limits. Nevertheless, a clear conception of desirable and undesirable student behavior in the area will enable the teacher to judge more readily whether students are able to handle the responsibility, and it will allow problems to be handled early before inappropriate patterns of behavior become established.

The previously cited example is only one of many areas for which teachers need procedures and expectations. Analyses of the classrooms of many elementary and secondary teachers in the R&DCTE studies have led to the identification of the following general areas:

--procedures for room and equipment use

--student behavior during individual seatwork including talk among students, obtaining assistance, and movement about the room

--student behavior during teacher-led instruction, including procedures for responding to questions and for soliciting or contributing information

--transitions, such as into and out of the room and beginning or ending a period or a day

--procedures during small-group instruction, laboratory instruction, or other non-whole-class activities.

In addition to expectations in the preceding areas, academic work procedures should also be planned. Areas to consider include:

--the communication of assignments and related work requirements

--make-up work and other procedures related to student absences

--procedures for monitoring student work and the completion of assignments, and assisting students who encounter difficulty with the assignments

--feedback to students about their progress, including associated recordkeeping, grading procedures, communication with parents, and procedures for dealing with students who fail to complete work.

The degree of emphasis placed on particular categories will vary depending on factors such as the age/grade level of students and the classroom context. In the elementary grades, the multiplicity of activities and patterns of grouping and individualization in some classrooms create a complex setting. Teachers in such settings need to give careful attention to procedures associated with various instructional groupings, including how students can obtain assistance when the teacher is occupied with a small group or individual; and what should be done when students return from out of the room, such as from a resource room or from another teacher's room. At the secondary level the organization of classes is usually less complex, and by this time students have learned more "going to school" skills, so the procedural concerns are usually fewer. However, the use of small-group or other non-whole-class instructional formats will greatly increase the behavioral complexity of the classroom for both the teacher and the students.

Consequences of not having clear expectations for behavior in the various procedural and work-related areas will depend upon the salience of the area to the activities used in the class, as well as the maturity or motivation level of individual students. The worst cases observed in the R&DCTE studies were teachers who failed to provide clear expectations for behavior in numerous areas, and who tried to implement a complex organizational pattern (e.g., extensive individualization and grouping in several subjects, while not providing clear expectations for behavior nor well defined procedures for the various activities). Because many of these teachers' students were immature or unwilling/unable to manage their own work-related behavior, little work was completed that was not directly supervised, and ultimately the teachers had great difficulty obtaining cooperation during even the simplest classroom activities once patterns of inattentive and off-task behavior become widespread.

Clear expectations and procedures appear to provide several advantages for classroom management. When communicated to students, expectations and procedures guide behavior. Most students will follow reasonable instructions if they know what to do, and they may use the stated expectation as a guide for self-monitoring. Absence of a procedure in a critical area requires students to rely on past experience, which may or may not be appropriate, or to seek information from the teacher or peers about what to do. Modeling of peers may be satisfactory in some cases, but some research (Buckley & Cooper, 1978) indicates that peers chosen for models are not always the ones who demonstrate ideal behavior. Seeking information from the teacher may cause interruptions and may not allow the teacher the time to think

through an optimum course of action. Another advantage of clear expectations is that they facilitate teacher monitoring of behavior. Thus, even if a teacher chooses not to state an expectation explicitly as a rule or procedure, he or she can use the expectation as a perceptual cue for interpreting behavior.

Phase Two: Beginning the School Year

The preparatory phase of readying the room and identifying expectations for behavior and academic work requirements needs to be translated into a plan of action for the beginning of school. The teacher must formulate beginning-of-school activities that establish the expectations as norms and that create a climate conducive to learning. Several naturalistic classroom studies at the beginning of the year provide important information on how effective managers proceed during this phase.

Moskowitz and Hayman (1976) observed 14 "best" teachers and 13 first-year junior high teachers on the first day of school and on several other occasions during the year. Observation measures included frequency counts of behaviors and anecdotal records. "Best" teachers were selected based on student ratings obtained at the end of the preceding year. Although this criterion is not a direct measure of management effectiveness, observational data from the study indicated that the "best" teachers were indeed better managers than the first-year teachers: They had fewer discipline problems and their students were more on task. The beginning-of-year behavior of the "best" teachers was different from that of the first-year teachers in several ways. Whereas new teachers seemed uncertain, oriented the class only briefly, and then began teaching, "best" teachers used the first class meeting to set

expectations and to establish control. They also talked more, used and accepted student feelings more, and praised more often than new teachers. In contrast to new teachers, who seemed nervous and ill at ease, best teachers smiled more and appeared confident.

Moskowitz and Hayman's results, both quantitative and anecdotal, indicate considerable differences in emphasis and behavior in their two groups of teachers. These differences and others were noted in the series of four management studies conducted at the Research and Development Center for Teacher Education and cited earlier in this report. Numerous differences between teachers identified as effective managers and those who were less effective were noted during the first 3 to 4 weeks of school. More effective managers were significantly higher on classroom observation and narrative record variables in the following areas:

--providing students with information about expectations for behavior and work

--consistency in dealing with inappropriate behavior

--monitoring student behavior and work

--prompt handling of inappropriate behavior

--clarity in presenting directions and instructions.

Students of less effective teachers more often exhibited inappropriate behavior in areas such as being out of their seats, unsolicited call outs, and social talk. Typically, more effective managers established and enforced expectations for behavior in these areas.

Some differences in climate setting variables (e.g., listening skills, expresses feelings, commands personal credibility) were also

obtained in these studies, although the differences were more apparent in the elementary studies than in the junior high studies.

The preceding summary gives an overview of the major types of variables that discriminated more and less effective managers. In addition, the longitudinal narrative data gathered in the R&DCTE studies were useful in providing concrete descriptions and in filling out the picture suggested by the quantitative variables. More effective classroom managers used portions of the first few days of class to provide general expectations for student behavior, commonly in the context of a discussion of rules for the classroom. Other research has also indicated that it is useful to provide a rationale for rules. In a study using resistance to deviation from a rule as the dependent variable, Lavoie (1973) used groups of adolescents to study effects of punishment alone, a rationale for a rule alone, their combination, and a control condition. Both punishment and a rationale were effective in increasing resistance to deviation, and the combination was not better than either condition alone. Because use of a rationale has fewer negative side effects, it would, of course, be preferred to punishment. In a study with children ages 5 to 10, Karoly and Briggs (1978) found that a positive rationale for rules--emphasizing grown-up behavior and a concern for others--produced greater self control compared to a rule without a rationale or a rule with threatened negative consequences. The effect persisted through a follow-up testing 1 week after the original experiment.

An initial set of rules, however, was only a small portion of the overall expectations for the behavior observed in the R&DCTE studies. In addition, teachers presented classroom procedures gradually over a

period of days or weeks, giving careful explanations of what was expected of students. Examples of areas in which these expectations were communicated were presented in preceding sections. These procedures were usually presented in the context of the activity in which they were to be used. With younger students, teaching procedures sometimes involved rehearsal and demonstration by the teacher or other students. At all grades, effective managers monitored and gave feedback, redirection, or further instruction as students began to engage in various activities. At early grade levels, teachers frequently indicated that it took 3 to 4 weeks before their class settled into routines. At the secondary level, expectations about work requirements and related matters tended to be more dominant and were communicated during the first week or so of instruction. Expectations for behavior in major procedural areas (e.g., student talk, transitions) were still communicated and were important for the conduct of instruction, but they usually took less time--students at this level, after all, have participated in school experiences for many years. Teachers at the secondary level typically relied on clear explanations of expectations and prompt feedback to students if they failed to follow procedures, rather than rehearsal or demonstration.

Content activities at the beginning of the year were generally not difficult and produced high levels of student success. Whole-class activities--teacher-led instruction and seatwork--predominated at least for the first few days. Small groups, individualized instruction, and other complex organizational patterns were usually not introduced until later. From a management perspective, the advantage of these limitations on activities was twofold. Whole-class activities enabled

the teacher to monitor students readily; also, they did not involve the use of complex procedures that might have been difficult to teach students. Easy assignments had the advantages of reducing the likelihood of failure and also the demands on the teacher's time that might have been caused by large numbers of students encountering difficulty with the tasks.

Teacher behavior during the beginning of school in more effectively managed classes could be characterized as "clearly in charge." These teachers were the main sources of information about what students were expected to do, and they stayed actively involved with the students by providing directions and instruction and by monitoring behavior and work. Less effective managers were more likely to fail to monitor students and otherwise to lose contact with the class as a whole, for example, by spending large amounts of time with individual students. Thus, the more effective managers created and then protected their classroom environment, while the less effective managers provided less structure, used activities that allowed more opportunities for intrusion and disruption, and did not monitor behavior as well nor did they provide feedback to prevent problems from developing further. Three underlying themes are helpful in interpreting and giving perspective to the beginning-of-year data. More effective managers appeared to work toward orienting students to the new setting while providing them with a sense of security and lessened anxiety about their ability to perform and to learn. This provision would apppear especially important for younger children and for students with a history of difficulty in academic work. A second theme was establishing an academic content focus so that students accept learning activities as the major purpose

for being in school. A third theme was promoting the acceptance of norms for appropriate behavior.

Phase Three: Maintenance Throughout the Year

Once students have settled into classroom routines, a third phase of classroom management begins. During this phase, skills in maintaining student engagement and preventing disruption of the environment are more prominent than the beginning-of-year tasks of communicating expectations, creating norms, and teaching procedures. Of course, the classroom management climate established at the beginning of the year continues to influence subsequent student behavior. Some indication of the extent of influence can be obtained by examining correlations between beginning-of-year management indicators such as level of disruption and the same indicators later in the year. Data from the R&DCTE studies generally shows moderate relationships, that is, correlations in the 0.4 to 0.6 range. For example, an analysis of data from 41 elementary teachers' classes (Emmer, 1982) compared average levels of disruptive behavior, unsanctioned off-task behavior, and on-task rates during the first 8 weeks of the school year and during a series of January and February observations. Correlations between the same variables measured at different times were 0.59, 0.49, and 0.46, respectively for the three variables. While these data are consistent with the hypothesis that the classroom environment established at the beginning of the year exerts at least a moderate influence on later behavior, it is apparent that other sources of influence can exist. Behaviors that helped establish a well managed setting are not sufficient to maintain it, and some teachers may survive a shaky start, reorganize their efforts, and turn around a difficult class.

Skills for maintaining a well managed setting can be subdivided into three major areas:

1. Monitoring skills and prompt handling of inappropriate behavior;
2. Organizing and conducting classroom activities;
3. Arranging consequences for student behavior and work.

Research related to each of these areas will now be summarized and discussed.

Monitoring skills and prompt handling of inappropriate behavior. Teacher skills in this area are also important both in the norm-setting phase of management at the beginning of the year, and in maintaining appropriate behavior throughout the year. In the R&DCTE studies, observation variables such as teacher maintains eye contact, and teacher stops inappropriate behavior quickly have been consistent, positive correlates of management success, while the variable teacher ignores inappropriate behavior consistently has been negatively correlated with managerial effectiveness. These results have been obtained both during beginning-of-year observations and in observations later in the year.

Research reported by Kounin (1970) identified "withitness" as an important management variable. Withitness is the percentage of teacher desists that are both accurate and timely. Whenever a teacher-desist event occurred, Kounin noted whether it was accurate (directed at the student who was the cause of the misbehavior) and timely (the desist occurred before the behavior spread to other students or became intense). Before correlating it with on-task or deviancy rates, Kounin scaled withitness so that a high score meant that the teacher exhibited more "withit" behavior. Correlations of withitness and the management criteria were convincingly high in both recitation and seatwork settings

to conclude that it represents an important component of management capability.

Other researchers have used Kounin's concept of withitness, with varying degrees of success. When Irving and Martin (1982) observed 14 teachers, their measure of withitness was not significantly correlated with measures of freedom from deviancy or with work involvement, and were actually correlated in the opposite direction than expected. However, these investigators operationalized withitness differently than Kounin. (Kounin has not always been consistent in describing his definitions; viz., Kounin, 1970; Kounin & Obradovic, 1968.) Consequently the failure to replicate Kounin's results may be a function of variation in definition of the variables, or small sample size, or both.

More positive results for withitness were obtained by Copeland (1983). He developed a computer simulation of a classroom that simultaneously required teacher vigilance in detecting off-task student behavior, the ability to maintain a classroom routine at a fast pace, and monitoring the correctness of student responses. Copeland calculated a total score for the game reflecting both withitness and "overlapping," another skill that Kounin identified as predictive of classroom management success. Overlapping correlates highly with withitness and reflects the degree to which a teacher can deal with interruptions or some other event in the context of an ongoing event. Copeland measured management skill in the computer simulation for 14 elementary education students, and then observed them during their student teaching when they had responsibility for their classes. He obtained a measure of withitness from his classroom observations and

also a score for a combined off-task and deviant behavior rate. The teacher's management score on the simulation was negatively correlated with the classroom off-task/deviancy rate (r = .679) and positively correlated with the measured in-class withitness (r = .755).

The role of withitness, or careful monitoring and prompt handling of inappropriate behavior, in maintaining the management system would appear to reside in the informational value it has for students. "Withit" behaviors inform students that the teacher's expectations are still in operation, and serve to deter students from further testing. It is apparent that in order to be "withit," a teacher must be a good monitor of student behavior. Monitoring alone is insufficient for good management, of course; a teacher will not survive for long as a mere spectator. Thus, prompt handling of inappropriate behavior becomes a complementary component.

Neither our data nor Kounin's suggest that effective managers respond to all instances of inappropriate behavior. Rather, they deal with those that are likely to spread or become more intense. Research has not indicated the cues that "withit" teachers use to decide when to intervene. This would be a useful area for further inquiry. A reasonable hypothesis is that factors such as the past behavior of the student, the "publicness" of the inappropriate behavior, and the nature of the class activity will influence this decision.

Research in this area also does not inform us explicitly on how "withit" teachers actually deal with the inappropriate behaviors when they desist them, other than that they do it promptly. Kounin studied the nature of desists extensively, examining their clarity, firmness, ripple effect, etc., but failed to find any desist characteristic that

predicted deviancy rates or work involvement in classroom settings. The absence of distinguishing desist features is consistent with other research on the self-reported reactions of teachers to descriptions of disruptive or inappropriate behavior. Brophy and Rohrkemper (1981) compared a sample of teachers identified as effective managers to a group of teachers assessed as average on this dimension. Few differences were found between the groups' reactions to problem vignettes, and the main differences appeared between teachers in different school districts. In the R&DCTE research, some data has indicated that better managers tend to cite rules and procedures in response to misbehavior more often than less effective managers do, but the result has not been a strong one. The relationship of "withitness" and "overlapping" in Kounin's research does provide a helpful clue as to the nature of the desist events; that is, they do not interrupt the ongoing classroom activity during which the desist event occurs. Thus, the desist is undoubtedly brief, undramatic, and a moderate intervention by the teacher. This picture of the desist event is consonant with Moskowitz and Hayman's (1976) ancedotal results as well as the R&DCTE narrative data. The importance of monitoring is evident here because a teacher who fails to note and deal with inappropriate behavior before it begins to spread or intensify is likely to have to resort to more intrusive measures to deal with the event.

It is helpful to consider this skill area in light of the higher levels of inappropriate or disruptive behavior that occur over time in more poorly managed classes. High levels of such behaviors cause problems because frequent interventions to deal with them interrupt activities, thus increasing the teacher's burden to maintain student

involvement. In addition, widespread deviant behavior produces inappropriate models for other students and may even create peer pressure for misbehavior. When low levels of these behaviors occur they are easier to monitor simply because they stand out against the background of generally appropriate behavior. In addition, mild interventions by the teacher (e.g., eye contact, redirection to the task) are more likely to succeed because the prevailing norm in the class is for task relevant behavior. Thus, the teacher who establishes norms for appropriate behavior at the beginning of the year is in a better position to demonstrate "withitness" later in the year than the teacher who starts the year poorly.

Organizing and conducting activities. So much of the research on classroom management focuses on preventing or reacting to inappropriate student behavior that it is easy to lose sight of the fact that most student time is taken up with participation in activities whose structure determines what the students are expected to do. Much of the teacher's preparation is aimed at planning activities, and their conduct can have a major bearing on the overall quality of student behavior. Research has identified a number of characteristics associated with effectively managed activities. In the R&DCTE studies, clarity of instruction and directions has been a consistent attribute of the successful management of activities and has consistently differentiated more and less effective classroom managers. Clarity reduces student uncertainty about expectations, and it provides information that enables students to accomplish academic tasks. Lack of clarity limits students' ability to complete tasks without assistance, and it increases

distractions caused by students seeking help or reacting to frustration.

Lesson provisions that enhance student success are also associated with greater managerial success. Jorgenson (1977) studied the relationship between the difference in reading material difficulty and student ability level and student classroom adjustment as measured by the Devereux Elementary School Behavior Rating Scale. Students with more difficult material exhibited poorer behavior, while students who had easier material (in fact, too easy in the sense of being below their grade level) behaved better. Other research has also found that estimated student success is predictive of student engagement, and that frequent failure is correlated with more disruption and less involvement (Fisher, Berliner, Filby, Marliave, Cahen, & Dishaw, 1980).

Transitions between activities can also be a source of disruption because they usually require large motor activity by students and because a transition may be self-directed once the teacher has given students a cue to begin it. Arlin (1979) studied transitions in elementary and junior high classes. Off-task behavior during transitions was correlated ($r = 0.62$) with off-task behavior during other activities, and thus may be symptomatic of other management problems. Significantly more off-task behavior occurred during transitions than at other times. However, when teachers provided structure for transitions, such as by establishing procedures or explaining what students were expected to do, Arlin found that off-task behavior was no greater than during nontransition activities. Thus, it would appear to be useful to include procedures for transitions as part of the overall set of expectations for behavior.

Kounin's study (1970), described above, of teacher behaviors related to student task involvement and freedom from deviancy included variables measuring activity management. Two related variables, lesson momentum and smoothness were significant predictors of the management criteria. Momentum and smoothness were assessed by determining the degree to which lessons were free of events and behaviors that slowed them down. Such events included teacher behaviors such as abruptly switching topics, making irrelevant comments, not completing an idea, or staying too long on a topic. Lessons with large numbers of such events had lower scores on momentum and smoothness. However, momentum and smoothness were much more predictive of management outcomes during recitation formats than during seatwork. Thus the type of activity makes different teacher behaviors salient for management.

Numerous studies have identified significant differences in student involvement in various types of activities. For example, higher time-on-task rates are reported in teacher-led, large-group instruction, and lower rates in whole-class and individual seatwork activities (Good & Beckerman, 1978; Gump, 1969). Properties of activities that may produce such differences were further investigated by Kounin and Gump (1974). They analyzed videotapes of 36 teachers presenting 596 lessons to preschoolers. Lessons were assessed according to the degree to which information was available to children about what to do (the "signal system" of the lesson) on a continuous basis; whether the lesson was insulated from competing inputs; and whether features of the lesson itself distracted other students (intrusiveness). Activities having the highest student involvement were those with continuous signals and with minimal distractions. Lessons with continuous signals from a single

source were next in pupil involvement. Activities with the least task involvement were those having discontinuous inputs from multiple sources (e.g., other children) and those with highly distracting features, such as loud noise or movement. Thus, some lesson formats are less likely to have high student involvement, simply because the nature of the activity itself causes discontinuity in signals about what to do or produces distracting events.

Of course, different curricular objectives may require using activities that are more vulnerable to interruptions or competing signals. Thus, an important question is: How can vulnerable activities be managed? A further analysis of the data from the preceding study (Kounin & Doyle, 1975) compared pairs of high and low involvement lessons taught by the same teacher for three separate types of activities: teacher reading, teacher demonstration, and individual child construction. Within each format, the degree of signal-input continuity was positively associated with task involvement. Techniques for producing high continuity varied across formats. In teacher reading and teacher demonstration lessons, lower task involvement occurred when student recitations of long duration occurred frequently. The effect of such events was to change the character of the activity from one in which the teacher was the main source of signals to one in which children shared this function. In construction lessons in which each child worked independently, the length of child recitations did not differentiate high and low involvement lessons. Instead, the degree to which the activity contained enhancers of continuity (such as models, props, step-by-step guidance, automatic feedback from progress, and other cues for behavior) as compared to detractors from signal

continuity (such as lack of directions, delays in providing information, early completion of tasks, unnecessary repetition) significantly lowered work involvement. Additional partial support for these results is provided from a study by Scott and Bushell (1974) who examined off-task rates of students in teacher-led, small-group mathematics lessons. Student off-task behavior increased when teacher contacts with individual students were lengthened, compared to a baseline established interval. Student off-task behavior decreased when the contact interval was shortened. The longer interval apparently decreased the degree to which signals or cues for appropriate behavior were continuous for the students not involved in the contact and made them more likely to respond to and produce distracting cues.

Although mostly conducted with preschool or elementary level children, research on conducting activities seems applicable to other age/grade levels. In particular, success in managing two very common types of activities (teacher-led whole-group or small-group instruction and individual student seatwork) depends on somewhat different types of skills. Group instruction formats must be protected from events and behaviors that compete with the teacher's signals and with the flow of the information in the lesson. Teachers can slow down lesson momentum through lack of clarity, poor lesson organization, and poor pacing. Students can slow down lessons by prolonged recitation (even if on task), and by noisy or otherwise intrusive behavior. Teacher skills in instructional clarity, lesson organization, and pacing help maintain continuity of signals to students. Monitoring and prompt handling of inappropriate behavior minimize intrusions by students and help preserve the activity flow. Communicating and enforcing expectations for

appropriate behavior can help prevent intrusions. Successful management of individual seatwork activities is more dependent upon the teacher's skills in choosing or designing tasks that can be successfully done by the students and providing prompts and assistance where needed. Material at too difficult a level or a lack of clarity about what to do next will detract from work involvement.

Management of consequences. Consequences are an inevitable component of the transactions individuals have with their environment. Much behavioral science research and theory posits consequences or the expectation of consequences as the basis for goal-directed or instrumental behavior. It is not surprising, then, that research has examined the effects of consequences on classroom processes and outcomes. Furthermore, a variety of approaches to behavior management have been developed featuring the use of consequences. Many of these approaches are derived from the applied behavior analysis tradition, but other perspectives are also present: for example, Adlerian or Individual psychology (Balson, 1982; Dreikers, Grunwald, & Pepper, 1982) and Reality Therapy (Glasser, 1979). No attempt will be made to review this extensive literature; reviews with an emphasis on classroom applications are available elsewhere (Brophy, 1981; Dunkin & Biddle, 1974; Thoreson, 1973). Instead, major trends and implications of selected aspects of this literature will be described.

Important distinctions among types of consequences include positive versus negative, with positive consequences frequently equated with positive reinforcement or rewards, and negative consequences equated with punishment and the withholding of positive consequences. Some consequences are a more natural or logical outcome of behavior than are

other consequences that may be perceived as externally imposed and arbitrary.

Many of the natural consequences for student behavior are not directly influenced by the teacher. So many different student behaviors occur in a classroom that direct effects would be a physical impossibility, even if they were desirable. Instead, natural consequences occur as individual students act on their environment. For example, a student works a problem and experiences the satisfaction of completing it (a positive consequence) or experiences anxiety (a negative consequence) when she or he fails to solve it. However, a teacher can indirectly influence consequences by arranging conditions that increase the probability that positive consequences will occur or that negative consequences will not occur--for example, by clear explanations that allow students to solve the problems and by choosing problems that are interesting or appropriate for student ability levels.

The most developed and researched set of procedures for managing consequences has been in the area of applied behavior analysis. Techniques contributed from this field include the manipulation of teacher attention, contingency contracting for rewards in exchange for specified behaviors, response cost systems, time out, and token economy systems. Behavior modification techniques emphasize identification and specification of desired behaviors, the determination of baseline rates before application of the technique, and the evaluation of the success of the procedure by examining changes compared to baseline rates. The central principle underlying the various techniques is the presence of a contingency between the desired behavior and the reinforcing event, or between the undesirable behaviors and the negative consequences.

Applied behavior analysis techniques have been applied successfully in many studies to improve on-task rates or to decrease disruptive behavior. The majority of the studies are limited to one or a few teachers and students, and often utilize reversal designs to examine effects. When large-scale experiments have been attempted, there has frequently been a problem with identifying an appropriate control group and isolating the effects of the different components of the treatment packages. Nonetheless, the accumulation of evidence indicates that contingent control of consequences can have a strong effect on student classroom behavior and achievement (Benowitz & Busse, 1976; Breuning, 1978; Hamblin & Hamblin, 1972; Harris & Sherman, 1974; Thompson, Brassell, Persons, Tucker, & Rollins, 1974; Wyne & Stuck, 1979).

In each of the consequence-management techniques mentioned above, the delivery of the consequences is external to the individual student receiving it. This makes the behavior modification procedures susceptible to attribution effects arising from the student's perception and interpretation of the situation. This concern is at the heart of early criticisms of behavior modification (Burger, 1972), and it has also stimulated much recent research and criticism within the field. Also, Balsam and Bondy (1983) argue that the effects of reward and punishment are symmetrical: Just as punishment has both positive and negative effects, so too will reward have positive and negative side effects. For example, one of the commonly cited negative side effects of punishment is emotional arousal that can block appropriate behavior; symmetrically, anticipation of rewards under certain conditions can elicit emotional responses that interfere with learning. Another side effect of punishment is transiency--that is, only a temporary suppression of the

targeted behavior. Its counterpart for rewards is a return to baseline rates of the desired behavior after removal of the reinforcement contingency. Applied behavior analysis studies, while often successful in effecting immediate change within the classroom environment created by the research, have frequently experienced problems with establishing generalization across settings or with maintaining their effects (Phillips & Ray, 1980).

Of even more concern for classroom applications of contingency management than problems with generalization and maintenance is the possibility that the use of externally provided rewards might reduce the intrinsic motivation of students. Intrinsic movitation may be judged by response rates that occur naturally, with whatever consequences are inherent to the setting. After application of externally managed reinforcers (tangible rewards), response rates typically rise. However, if the reinforcement is withdrawn, the response rate may, in some circumstances, decline <u>below</u> its original level (Deci, 1975; Lepper, 1980). The decrement suggests a detrimental long-term effect on student motivation to engage in the behavior that was originally targeted for improvement.

Negative side effects of consequence systems do not necessarily rule out their use. The issue is how to minimize the negative effects as well as their degree and likelihood, balanced against the benefits of using such systems. One response to concerns about negative effects of external control of consequences has been a line of inquiry focusing on procedures that transfer consequence control to the learner. Some self-control procedures that have produced positive results include self-verbalization of instructions, self-recording of behavior

(Sagotsky, Patterson, & Lepper, 1978), serving as a model for appropriate behavior (Toner & Moore, 1978), and self-selection of consequences and contingencies (Pressley, 1979; Rosenbaum & Drabman, 1979). However, much of this research has been done with individuals in laboratory or clinical settings, with only limited classroom applications. The attraction of this area of research is its potential for generating classroom procedures to enhance both appropriate student behavior and intrinsic student motivation. At this time, successful classroom-tested systems for implementing pupil self-control of contingencies are not available, and further research is needed. One research approach would be to use scales that assess intrinsic motivation (e.g., Harter, 1981) to identify teachers whose students' motivation for learning tasks improves over a school year. Factors related to improved motivation might then be identified through observation of the classes, interviews, or other naturalistic processes.

A second approach to dealing with the problem of long-range effects on intrinsic motivation has been to identify conditions under which extrinsic consequence systems are likely to have positive or negative effects. Bates' (1979) review of reward systems concluded that rewards contingent only upon participation in an activity have a detrimental effect, particularly when students initially find the activity interesting. The effects of tangible rewards contingent on performance rather than upon participation can increase student interest, when the rewards are perceived as inherent to the activity (i.e., natural consequences) and not simply a superfluous incentive. Thus, in situations where tangible rewards may be chosen, a rationale should be explicitly provided to students to relate the consequences to the

expected performance. Finally, social reinforcers such as praise and recognition may not have the same negative effects as more tangible rewards. Bates concluded that " . . . social reinforcers may contribute to intrinsic motivation if they are salient to the task at hand and if their presentation is both unambiguous and of a low enough frequency to prevent satiation" (p. 573). The fact that social reinforcers may contribute to intrinsic motivation, whereas tangible reinforcers may not, may be due to the fact that the social reinforcers are perceived by students as more natural to the classroom environment.

It should be noted that no research has clearly demonstrated a negative motivational effect when intrinsic motivation initially is low, which is precisely the situation in which teachers are most apt to use a token economy or contingency contracting system. However, the weight of current evidence is against the use of token systems or other tangible rewards incentives when students are initially at least moderately motivated to participate. In such cases, performance feedback, social approval, and grades should be sufficient to maintain involvement, especially if the teacher's other classroom management skills are adequate. Current evidence does not rule against the use of tangible rewards when the initial motivational level of students is very low. However, classroom-tested procedures for maintaining student performance after withdrawal of such a system are not well developed, although "thinning" of reinforcement, substitution of social reinforcers, and ideally, intrinsic satisfaction derived from increased success and competence can help in the transition. It seems apparent that even though external manipulation of incentives can be used to foster task engagement and achievement, intrinsic student motivation will be

influenced by, as Brophy (1983) states, " . . . the degree to which students are socialized to value learning opportunities for their own sake, recognize and appreciate advances in knowledge and skill, and take pride in craftsmanship as they work on assignments" (p. 214).

Privileges, recognition, praise and other forms of teacher approval are frequently used in elementary and secondary classrooms, and are far more prevalent than token economies or contingency contracting. Because they are frequently used as part of a classroom management system, the effect of these types of consequences is difficult to separate from other aspects of the setting. Also, these consequences function as feedback to the student, and it is not clear that the socially based consequences have effects on performance over and above the well established reinforcing effects of feedback alone (Brophy, 1981). For example, Spence (1972) provided feedback alone, feedback accompanied by either verbal rewards or verbal punishment, and either a supplementary reward alone (candy), or a supplementary punishment alone (a loud buzzer) after correct or incorrect responses on a discrimination task. No significant difference in the learning of 200 preschool children was observed across these five conditions. The sample size was adequate to detect even relatively small effects had they occurred, so a reasonable conclusion is that supplemental rewards (or punishments) have little or no effect on performance over and above that of feedback alone.

Even though consequences may affect academic performance only to the extent that they provide feedback, consequences may have an added effect on student cooperation and compliance. The effect of consequences (group and individual praise and group activities) plus rules and feedback was compared to rules alone and to rules plus

feedback in a study by Greenwood, Hops, Delquadri, and Guild (1974). The total package produced more appropriate behavior than either of the other conditions. Also, rules plus feedback had more positive effects than rules alone, which produced no change in appropriate behavior rates. The effects persisted in the three classes studied through a 3-week follow-up observation period.

In the R&DCTE management studies, incentive systems of varying complexity have been observed, but no single type has been identified as more effective than others. Thus, some effective managers have been observed using only grades and occasional social approval, while other effective managers have used token systems with chips given for both individual and group behavior. In these latter cases the "payoff" was monthly and was a group reward (e.g., a party). Interestingly, these classes were in low SES settings, in which initial motivation levels may have been low. However, effective teachers who relied mainly on verbal feedback and social approval for positive consequences have also been observed in similar settings. Ineffective managers have also been observed using different types of incentives and to different degrees. Thus, it is not the use of positive consequences per se that affects classroom management results, but rather how they are used. Better managers tend to communicate clearer expectations about desired behavior, so the feedback students receive when they are praised is more likely to be unambiguous and focus on desired behavior. Better managers also give frequent feedback for academic work, inspecting and checking it regularly. Thus, consequences are associated mainly with the students' performance on academic work and less subject to negative

attribution effects, in agreement with Bates' conclusion regarding social approval.

In summary, Brophy's (1981) suggestions for effective use of praise seem applicable to all forms of social approval. Praise should be contingent upon specific accomplishments or effort, and it should make clear to the student what is being approved. The approval also should convey the idea that the task itself and the effort expended are worthwhile and important and were not done simply to please the teacher or for other external reasons. In addition, any comparison implicit in the approval should be with the student's prior behavior or performance rather than with other students' accomplishments. Social approval given in this manner will be more likely to retain its reinforcing properties and to foster in students an internal attribution for their accomplishments.

Negative consequences. Broadly conceived, negative consequences can include a variety of events, including penalty systems, teacher disapproval or criticism, withholding privileges or other rewards, and time out. It is assumed that students usually find such events unpleasant and wish to avoid them. Much research in experimental psychology indicates that painful negative consequences can suppress undesirable behavior, although punishment alone is not sufficient to induce desirable behavior. However, most of the experimental research on punishment effects in humans is not directly relevant to classroom management applications because the intensity and types of punishment used are not appropriate in schools.

Research in classrooms generally has focused on facets of mild punishers such as teacher disapproval or criticism. Reviews (e.g,

Dunkin & Biddle, 1974; Medley, 1977) have noted that high levels of criticism are associated with more disruptive or inappropriate student behavior, but it is obvious that such a result could as easily be due to the teacher's reaction to student behavior or vice versa. As noted earlier, neither Kounin's studies, other researchers, nor the R&D Center management studies have found consistent differences between more and less effective managers' types of response to misbehavior. What differentiated managers was their monitoring and prompt handling of it. One additional aspect of the teacher's response to inappropriate behavior merits consideration, however. More effective managers are more consistent in their enforcement of rules and expectations for behavior, while less effective managers are more likely to ignore inappropriate behavior.

Several experimental studies of the effects of punishment on aggression in elementary-age boys have highlighted the importance of consistency in suppressing aggressive behavior and have also shown that inconsistency can greatly increase the incidence of the behavior (Duer & Parke, 1970; Parke & Duer, 1972; Sawin & Parke, 1979). In the Sawin and Parke study, for example, first- and second-grade boys were assigned to four groups that received different adult reactions (consistent disapproval, consistent ignoring, consistent approval, inconsistent approval and disapproval) to their hitting a doll. Consistent disapproval produced the least aggressive responding, compared to the other three conditions, which did not differ from each other. In a second companion experiment, the frequency of hitting responses during a later phase of consistent disapproval was greatest when the boys had been exposed initially to inconsistent adult approval and disapproval of

hitting. Interestingly, two types of reactions to inconsistent discipline of aggression were noted by Sawin and Parke (1979). Some of the boys responded to inconsistency by immediately inhibiting their aggressive behavior, while other boys emmitted extremely high levels of aggressive behavior in reaction to inconsistency. This effect suggests that because of prior conditioning inconsistency elicits an emotional response, akin to anxiety, which produces avoidance in some boys, but in others results in heightened approach to the disapproved stimulus. It does not take much imagination to envision the effects of an inconsistent teacher on the classroom behavior of the latter type of boys. Furthermore, once an inconsistent pattern of teacher disapproval has been established, even if the teacher subsequently becomes more consistent, this experiment's results suggest that it will be difficult to terminate the undesirable behavior.

Summary

Classroom management was described as a three phase process. In the preactive phase, expectations for student behavior are formed and translated into classroom procedures and routines. In addition, the physical setting is prepared and beginning-of-year activities are planned. The second phase occurs during the first days or weeks of the school year. During this phase norms are established and classroom procedures and routines are initiated. The third phase consists of the maintenance of the setting during the remainder of the year. In this phase, the management of activities is the major task confronting the teacher. Key concepts and principles that are a basis for effective management include identification of desirable student behavior in major areas of classroom processes and work, clear communication of the

expectations to students, monitoring of student behavior and work, prompt handling of nontrivial inappropriate behavior, designing activities that promote student involvement and success, and using consequences consistently.

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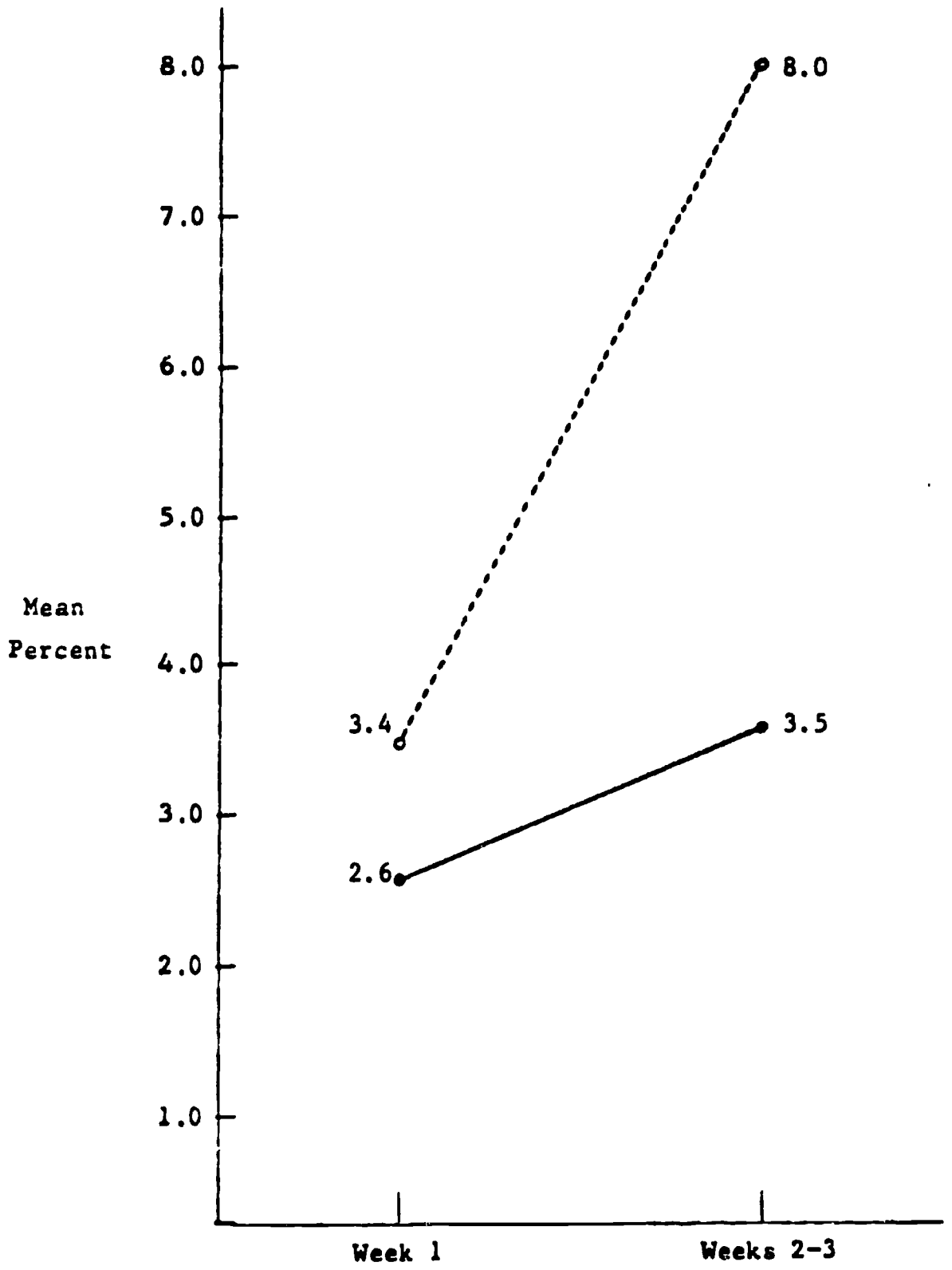

Figure 1. Average percent off-task, unsanctioned behavior during Week 1 and Weeks 2-3 in more effective (ME) and less effective (LE) managers' classes.

[·————————· = ME; ·----------· = LE]